



DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

Petition for Exemption from the Federal Motor

Vehicle Theft Prevention Standard;

CHRYSLER

AGENCY: National Highway Traffic Safety Administration (NHTSA),
Department of Transportation (DOT)

ACTION: Grant of petition for exemption.

SUMMARY: This document grants in full the Chrysler LLC, (Chrysler) petition for exemption of the Chrysler [confidential] vehicle line in accordance with 49 CFR Part 543, Exemption from Vehicle Theft Prevention Standard. This petition is granted because the agency has determined that the antitheft device to be placed on the line as standard equipment is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard 49 CFR Part 541, Federal Motor Vehicle Theft Prevention Standard. Chrysler requested confidential treatment for specific information in its petition. The agency will address Chrysler's request for confidential treatment by separate letter.

DATES: The exemption granted by this notice is effective beginning with the [confidential] Model Year (MY).

FOR FURTHER INFORMATION CONTACT: Ms. Deborah Mazyck, International Policy, Fuel Economy and Consumer Programs, NHTSA, W43-443, 1200 New Jersey Avenue, S.E., Washington, DC 20590. Ms. Mazyck's phone number is (202) 366-4139. Her fax number is (202) 493-2990.

SUPPLEMENTARY INFORMATION: In a petition dated June 3, 2013, Chrysler requested an exemption from the parts-marking requirements of the Theft Prevention Standard (49 CFR Part 541) for a confidential vehicle year and vehicle line. The petition requested an exemption from parts-marking pursuant to 49 CFR Part 543, *Exemption from Vehicle Theft Prevention Standard*, based on the installation of an antitheft device as standard equipment for the entire vehicle line.

Under 49 CFR Part 543.5(a), a manufacturer may petition NHTSA to grant an exemption for one vehicle line per model year. In its petition, Chrysler provided a detailed description and diagram of the identity, design, and location of the components of the antitheft device for the [confidential] vehicle line. Chrysler will install the Sentry Key Immobilizer System (SKIS)/“MiniCrypt” antitheft device as standard equipment on the vehicle line. The SKIS will provide passive vehicle protection by preventing the engine from operating unless a valid electronically encoded key is detected in the ignition system of the vehicle. The major components of the SKIS device consist of the Radio Frequency Hub Module (RFHM), Ignition Node Module (IGNM), Engine Control Module, Body Controller Module (BCM), the transponder key which performs the immobilizer function and an Instrument Panel Cluster which contains the telltale function only. According to Chrysler, all of these components work collectively to perform the immobilizer function. Chrysler stated that the SKIS does not provide an audible alert; however, the vehicle will be equipped with a security indicator in the instrument panel cluster that will flash if an invalid transponder key is detected. Chrysler’s submission is considered a complete petition as required by 49 CFR 543.7 in that it meets the general requirements contained in 543.5 and the specific content requirements of 543.6.

Chrysler stated that the SKIS will be placed on both its keyless entry vehicles and keyed vehicles. According to Chrysler, in its keyed vehicles, the SKIS immobilizer feature is activated when the key is removed from the ignition system (whether the doors are open or not). Specifically, the RFHM is paired with the IGNM that contains either a rotary ignition switch (keyed vehicles) or a START/STOP push button (keyless vehicles). Chrysler stated that the functions and features of the SKIS are all integral to the BCM in this vehicle. The RFHM contains a Radio Frequency (RF) transceiver and a microprocessor and it initiates the ignition process by communicating with the BCM through SKIS. The microprocessor-based SKIS hardware and software also use electronic messages to communicate with other electronic modules in the vehicle.

Chrysler stated that, in its keyed vehicles, the SKIS uses RF communication to obtain confirmation that the key is a valid transponder key to operate the vehicle. The RFHM receives Low Frequency (LF) and/or RF signals from the Sentry Key transponder which is integral to the fob with integrated key. For the keyed vehicles, the IGNM transmits an LF signal to excite the transponder in the key when the ignition switch is turned to the ON position. The IGNM waits for a signal response from the transponder and transmits the response to the RFHM. If the response identifies the transponder key as invalid or if no response is received from the transponder key, Chrysler stated that the RFHM will send an invalid key message to the Engine Control Module, which will disable engine operation and immobilize the vehicle after two seconds of running. Only a valid key inserted into the ignition system will allow the vehicle to start and continue to run.

Chrysler stated that, in its keyless vehicles, the RFHM is connected to a Keyless Ignition

Node (KIN) with a START/STOP push button as an ignition switch. Chrysler stated that when the keyless START/STOP button is pressed, the RFHM transmits a signal to the transponder key through LF antennas to the RFHM. The RFHM then waits for a signal from the key fob transponder. If the response from the transponder identifies the transponder key as invalid or the transponder key is not within the car's interior, the engine will be disabled and the vehicle will be immobilized after two seconds of running.

To avoid any perceived delay when starting the vehicle with a valid transponder key and also to prevent unburned fuel from entering the exhaust, Chrysler stated that the engine is permitted to run for no more than two seconds if an invalid transponder key is used. Additionally, Chrysler stated that only six consecutive invalid vehicle start attempts will be permitted and that all other attempts will be locked out by preventing the fuel injectors from firing and disabling the starter.

In addressing the specific content requirements of 49 CFR Part 543.6, Chrysler provided information on the reliability and durability of the device. Chrysler conducted tests based on its own specified standards, i.e., voltage range and temperature range, and stated its belief that the device meets the stringent performance standards prescribed. Specifically, Chrysler stated that its device must demonstrate a minimum of 95 percent reliability with 90 percent confidence. In addition to the design and validation test criteria, Chrysler stated that 100% of its systems undergo a series of three functional tests prior to being shipped from the supplier to the vehicle assembly plant for installation in the vehicles.

Chrysler stated that its vehicles are also equipped with a security indicator that also acts as a diagnostic indicator. Specifically, Chrysler stated that if the RFHM detects an invalid

transponder key or if a transponder key related fault occurs, the security indicator would flash.

If the RFHM detects a system malfunction or the SKIS becomes ineffective, the security indicator would stay on. The SKIS also performs a self-test each time the ignition system is turned to the RUN position and will store fault information in the form of a diagnostic trouble code in RFHM memory if a system malfunction is detected. Chrysler also stated that the vehicle is equipped with a Customer Learn transponder programming feature that when in use will cause the security indicator to flash.

Chrysler further stated that each ignition key used in the SKIS has an integral transponder chip included on the circuit board. Each transponder key has a unique transponder identification code that is permanently programmed into it by the manufacturer and must be programmed into the RFHM to be recognized by the SKIS as a valid key. Chrysler stated that once a Sentry Key has been programmed to a particular vehicle, it cannot be used on any other vehicle.

Chrysler stated that it expects the [confidential] vehicle line to mirror the lower theft rate results achieved by the Jeep Grand Cherokee vehicle line when ignition immobilizer systems were included as standard equipment on the line. Chrysler stated that it has offered the SKIS immobilizer system as standard equipment on all Jeep Grand Cherokee vehicles since the 1999 model year. Chrysler indicated that the average theft rate, based on NHTSA's theft data, for the Jeep Grand Cherokee vehicles for the four model years prior to 1999 (1995-1998), when a vehicle immobilizer system was not installed as standard equipment, was 5.3574 per one thousand vehicles produced, significantly higher than the 1990/1991 median theft rate of 3.5826. However, Chrysler also indicated that the average theft rate for the Jeep Grand Cherokee for the nine model years (1999-2009, no data available for 2007 and 2009) after installation of the

standard immobilizer device was 2.5704, which is significantly lower than the median. The Jeep Grand Cherokee vehicle line was granted an exemption from the parts-marking requirements beginning with MY 2004 (67 FR 79687, December 30, 2002). Chrysler further asserts that NHTSA's theft data for the Jeep Grand Cherokee indicates that the inclusion of a standard immobilizer system resulted in a 52 percent net average reduction in vehicle thefts.

Pursuant to 49 U.S.C. 33106 and 49 CFR Part 543.7(b), the agency grants a petition for exemption from the parts-marking requirements of Part 541, either in whole or in part, if it determines that, based upon substantial evidence, the standard equipment antitheft device is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of Part 541. The agency finds that Chrysler has provided adequate reasons for its belief that the antitheft device for the vehicle line is likely to be as effective in reducing and deterring motor vehicle theft as compliance with the parts-marking requirements of the Theft Prevention Standard (49 CFR Part 541). This conclusion is based on the information Chrysler provided about its device.

The agency concludes that the device will provide four of the five types of performance listed in 49 CFR Part 543.6(a)(3): promoting activation; preventing defeat or circumvention of the device by unauthorized persons; preventing operation of the vehicle by unauthorized entrants; and ensuring the reliability and durability of the device.

For the foregoing reasons, the agency hereby grants in full Chrysler's petition for exemption for its [confidential] vehicle line from the parts-marking requirements of 49 CFR Part 541, beginning with its [confidential] model year vehicles. The agency notes that 49 CFR Part 541, Appendix A-1, identifies those lines that are exempted from the Theft Prevention Standard

for a given model year. 49 CFR Part 543.7(f) contains publication requirements incident to the disposition of all Part 543 petitions. Advanced listing, including the release of future product nameplates, the beginning model year for which the petition is granted and a general description of the antitheft device is necessary in order to notify law enforcement agencies of new vehicle lines exempted from the parts marking requirements of the Theft Prevention Standard. Chrysler stated that an official nameplate for the vehicle has not yet been determined, but it will notify the agency as soon as that determination has been made.

If Chrysler decides not to use the exemption for this vehicle line, it must formally notify the agency. If such a decision is made, the vehicle line must be fully marked as required by 49 CFR Parts 541.5 and 541.6 (marking of major component parts and replacement parts).

NHTSA notes that if Chrysler wishes in the future to modify the device on which this exemption is based, the company may have to submit a petition to modify the exemption. 49 CFR Part 543.7(d) states that a Part 543 exemption applies only to vehicles that belong to a line exempted under this part and equipped with the anti-theft device on which the line's exemption is based. Further, 49 CFR Part 543.9(c)(2) provides for the submission of petitions "to modify an exemption to permit the use of an antitheft device similar to but differing from the one specified in that exemption."

The agency wishes to minimize the administrative burden that 49 CFR Part 543.9(c)(2) could place on exempted vehicle manufacturers and itself. The agency did not intend in drafting Part 543 to require the submission of a modification petition for every change to the components or design of an antitheft device. The significance of many such changes could be *de minimis*. Therefore, NHTSA suggests that if the manufacturer contemplates making any changes, the

effects of which might be characterized as *de minimis*, it should consult the agency before preparing and submitting a petition to modify.

Authority: 49 U.S.C. 33106; delegation of authority at 49 CFR 1.50.

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Christopher J. Bonanti
Associate Administrator for
Rulemaking

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